

City of Wyoming

# Employees Retirement System

GASB Statement Nos. 67 and 68 Accounting and  
Financial Reporting for Pensions

June 30, 2019



August 30, 2019

Board of Trustees  
City of Wyoming Employees Retirement System

Dear Board Members:

This report provides accounting and financial reporting information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 for the City of Wyoming Employees Retirement System. These calculations have been made on a basis that is consistent with our understanding of these Statements.

GASB Statement No. 67 is the accounting standard that applies to the stand-alone financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statement Nos. 67 and 68. The calculation of the City's liability for this report may not be applicable for funding purposes of the plan. A calculation of the City's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the City of Wyoming Employees Retirement System only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this report.

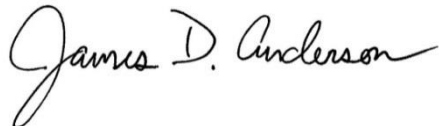
This report is based upon information, furnished to us by the City of Wyoming Employees Retirement System, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. This information was checked for internal consistency, but it was not audited.

This report complements the actuarial valuation report that was provided to the City of Wyoming Employees Retirement System and should be considered in conjunction with that report. Please see the actuarial valuation report as of June 30, 2018 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

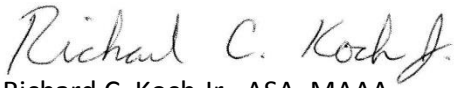
To the best of our knowledge, the information contained within this report is accurate and fairly represents the actuarial position of the City of Wyoming Employees Retirement System. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

James D. Anderson and Richard C. Koch Jr. are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



James D. Anderson, FSA, EA, FCA, MAAA



Richard C. Koch Jr., ASA, MAAA

JDA/RCK:sc

Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Wyoming Employees Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.



# Table of Contents

## Page

<b>Section A</b>	<b>Executive Summary</b>	
	Executive Summary.....	1
	Discussion.....	2
<b>Section B</b>	<b>Financial Statements</b>	
	Statement of Pension Expense .....	6
	Statement of Outflows and Inflows Arising from Current Reporting Period .....	7
	Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods ....	8
	Recognition of Deferred Outflows and Inflows of Resources.....	9
	Statement of Fiduciary Net Position .....	10
	Statement of Changes in Fiduciary Net Position .....	11
<b>Section C</b>	<b>Required Supplementary Information</b>	
	Schedule of Changes in Net Pension Liability and Related Ratios Current Period .....	12
	Schedule of Changes in Net Pension Liability and Related Ratios .....	13
	Schedule of Net Pension Liability (NPL) .....	14
	Schedule of Contributions .....	15
	Notes to Schedule of Contributions.....	16
	Schedule of Investment Returns.....	17
<b>Section D</b>	<b>Schedules by Employer</b>	
	Schedule of Employer Allocations of NPL (Including Sensitivity Analysis).....	18
	Schedule of Pension Amounts by Employer .....	19
	Schedule of Deferred Resources by Employer by Year.....	20
<b>Section E</b>	<b>Notes to Financial Statements</b>	
	Long-Term Expected Return on Plan Assets and Asset Allocation .....	21
	Sensitivity of Net Pension Liability to the Single Discount Rate Assumption .....	22
	Reconciliation of DROP for Police Officers .....	23
	Summary of Population Statistics .....	24
<b>Section F</b>	<b>Summary of Benefits</b> .....	25
<b>Section G</b>	<b>Actuarial Cost Method and Actuarial Assumptions</b>	
	Actuarial Cost Methods, Entry Age Normal.....	29
	Actuarial Assumptions, Input to Discount Rates, Mortality Assumptions and Experience Studies .....	30
	Miscellaneous and Technical Assumptions .....	34
<b>Section H</b>	<b>Calculation of the Single Discount Rate</b>	
	Calculation of the Single Discount Rate .....	35
	Projection of Contributions.....	36
	Projection of Plan Fiduciary Net Position .....	38
	Present Values of Projected Benefits.....	40
	Projection of Plan Net Position and Benefit Payments .....	42
<b>Section I</b>	<b>Michigan Public Act 202</b> .....	43
<b>Section J</b>	<b>Glossary of Terms</b> .....	45

# SECTION A

---

## EXECUTIVE SUMMARY

# Executive Summary as of June 30, 2019

Actuarial Valuation Date	June 30, 2018
Measurement Date of the Net Pension Liability	June 30, 2019
Employer's Fiscal Year Ending Date (Reporting Date)	June 30, 2019

## Membership (as of valuation date)

Number of	
- Retirees and Beneficiaries	402
- Inactive, Nonretired Members	63
- Active Members	148
- Total	613
Covered Payroll <sup>(1)</sup>	\$ 11,413,503

## Net Pension Liability

Total Pension Liability	\$ 196,640,547
Plan Fiduciary Net Position	178,815,918
Net Pension Liability	\$ 17,824,629
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	90.94%
Net Pension Liability as a Percentage of Covered Payroll	156.17%

## Development of the Single Discount Rate

Single Discount Rate	7.25%
Long-Term Expected Rate of Investment Return	7.25%
Long-Term Municipal Bond Rate <sup>(2)</sup>	3.13%
Last year ending June 30 in the 2020 to 2119 projection period for which projected benefit payments are fully funded	2119

<b>Total Pension Expense</b>	<b>\$ 1,992,485</b>
------------------------------	---------------------

## Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ -	\$ 625,957
Changes in assumptions	-	-
Net difference between projected and actual earnings on pension plan investments	3,080,256	4,326,960
<b>Total</b>	<b>\$ 3,080,256</b>	<b>\$ 4,952,917</b>

<sup>(1)</sup> The amount provided represents the annual pays for members active on the valuation date and does not necessarily represent Covered Payroll as defined in GASB Statement Nos. 67 and 68.

<sup>(2)</sup> Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 28, 2019. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.

# Discussion

## Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the Net Pension Liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

## Financial Statements

GASB Statement No. 68 requires State or local governments to recognize the Net Pension Liability and the pension expense on their financial statements. The Net Pension Liability is the difference between the Total Pension Liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective Net Pension Liability and before the end of the employer's reporting period should be reported as a deferred outflow or resources related to pensions." The information contained in this report does not incorporate any contributions made to the Retirement System subsequent to the measurement date of June 30, 2019.

The pension expense recognized each fiscal year is equal to the change in the Net Pension Liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.



# Discussion (Continued)

## Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans to include certain additional information. The list of disclosure items should include:

- a description of benefits provided by the plan;
- the type of employees and number of members covered by the pension plan;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- the pension plan's fiduciary net position, Net Pension Liability, and the pension plan's fiduciary net position as a percentage of the Total Pension Liability;
- the Net Pension Liability using a discount rate that is 1% higher and 1% lower than used to calculate the Total Pension Liability and Net Pension Liability for financial reporting purposes;
- significant assumptions and methods used to calculate the Total Pension Liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- the composition of the pension plan's Board and the authority under which benefit terms may be amended;
- a description of how fair value is determined;
- information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- annual money-weighted rate of return.

## Discussion (Continued)

### Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the Net Pension Liability;
- information about the components of the Net Pension Liability and related ratios, including the pension plan's Fiduciary Net Position as a percentage of the Total Pension Liability, and the Net Pension Liability as a percent of covered-employee payroll; and
- a comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

### General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), then the following outcomes are expected:

1. Employer normal cost dollar amounts will eventually decrease as active member payroll declines due to the closed nature of the plan.
2. Amortization payment dollar amounts will remain level through fiscal year 2040.
3. The unfunded actuarial accrued liability is expected to be paid off at the end of fiscal year 2040.
4. The funded status of the plan will generally increase gradually towards a 100% funded ratio.

This funding policy results in the expectation that the plan's assets will be able to fully pay for promised benefits through at least 2119.

### Timing of the Valuation

An actuarial valuation to determine the Total Pension Liability is required to be performed at least every two years. The Net Pension Liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the Total Pension Liability is not calculated as of the measurement date, the Total Pension Liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The Total Pension Liability shown in this report is based on an actuarial valuation performed as of June 30, 2018 and a measurement date of June 30, 2019. The total pension liability was "rolled forward" from June 30, 2018 to June 30, 2019 using generally accepted actuarial principles.

## Discussion (Concluded)

### Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects: 1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits); and 2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.13% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 7.25%.

## SECTION B

---

### FINANCIAL STATEMENTS

## Pension Expense Under GASB Statement No. 68

### Fiscal Year Ended June 30, 2019

#### A. Expense

1. Service Cost	\$ 1,925,003
2. Interest on the Total Pension Liability	13,697,305
3. Current-Period Benefit Changes	-
4. Employee Contributions (made negative for addition here)	(397,502)
5. Projected Earnings on Plan Investments (made negative for addition here)	(12,449,788)
6. Pension Plan Administrative Expense	51,520
7. Other Changes in Plan Fiduciary Net Position	(61,132)
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	(1,403,297)
9. Recognition of Outflow (Inflow) of Resources due to Assets	630,376
<b>10. Total Pension Expense</b>	<b>\$ 1,992,485</b>

# Statement of Outflows and Inflows Arising from Current Reporting Period Fiscal Year Ended June 30, 2019

## A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ (1,353,221)
2. Assumption changes (gains) or losses	\$ -
3. Recognition period for liabilities: Average of the expected remaining service lives of all employees {in years}	1.8607
4. Outflow (Inflow) of resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	\$ (727,264)
5. Outflow (Inflow) of resources to be recognized in the current pension expense for assumption changes	\$ -
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	<u>\$ (727,264)</u>
7. Deferred Outflow (Inflow) of resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ (625,957)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	\$ -
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	<u>\$ (625,957)</u>

## B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ 1,773,331
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	\$ 354,666
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ 1,418,665

# Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended June 30, 2019

## A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to liabilities	\$ -	\$ 1,403,297	\$ (1,403,297)
2. Due to assets	2,576,497	1,946,121	630,376
<b>3. Total</b>	<b>\$ 2,576,497</b>	<b>\$ 3,349,418</b>	<b>\$ (772,921)</b>

## B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ -	\$ 963,845	\$ (963,845)
2. Assumption changes	-	439,452	(439,452)
3. Net difference between projected and actual earnings on pension plan investments	2,576,497	1,946,121	630,376
<b>4. Total</b>	<b>\$ 2,576,497</b>	<b>\$ 3,349,418</b>	<b>\$ (772,921)</b>

## C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	\$ -	\$ 625,957	\$ (625,957)
2. Assumption Changes	-	-	0
3. Net Difference between projected and actual earnings on pension plan investments	3,080,256	4,326,960	(1,246,704)
<b>4. Total</b>	<b>\$ 3,080,256</b>	<b>\$ 4,952,917</b>	<b>\$ (1,872,661)</b>

## D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending June 30	Net Deferred Outflows of Resources
2020	\$ (555,821)
2021	(1,591,456)
2022	(80,051)
2023	354,667
2024	-
Thereafter	-
<b>Total</b>	<b>\$ (1,872,661)</b>

# Recognition of Deferred Outflows and Inflows of Resources

## Fiscal Year Ended June 30, 2019

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
<b>Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities</b>					
2015	\$ (4,021,270)	3.1853	\$ 0	\$ 0	0.0000
2016	1,656,314	2.8447	0	0	0.0000
2017	(1,793,035)	2.3040	(236,581)	0	0.0000
2018	0	2.1019	0	0	0.1019
2019	(1,353,221)	1.8607	(727,264)	(625,957)	0.8607
<b>Total</b>			<b>(963,845)</b>	<b>(625,957)</b>	
<b>Deferred Outflow (Inflow) due to Assumption Changes</b>					
2015	\$ 22,369,832	3.1853	\$ 0	\$ 0	0.0000
2016	0	2.8447	0	0	0.0000
2017	(3,330,586)	2.3040	(439,452)	0	0.0000
2018	0	2.1019	0	0	0.1019
2019	0	1.8607	0	0	0.8607
<b>Total</b>			<b>\$ (439,452)</b>	<b>\$ 0</b>	
<b>Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments</b>					
2015	\$ 2,801,210	5.0000	\$ 560,242	\$ 0	0.0000
2016	8,307,947	5.0000	1,661,589	1,661,591	1.0000
2017	(7,557,031)	5.0000	(1,511,406)	(3,022,813)	2.0000
2018	(2,173,577)	5.0000	(434,715)	(1,304,147)	3.0000
2019	1,773,331	5.0000	354,666	1,418,665	4.0000
<b>Total</b>			<b>\$ 630,376</b>	<b>(1,246,704)</b>	

According to Paragraph 33 of GASB Statement No. 68, differences between expected and actual experience and changes in assumptions are recognized in pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the measurement period, the expected remaining service lives of all contributing members was 1,141 years. Additionally, the combined plan membership (active employees and inactive employees) was 613. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the measurement period is 1.8607 years.

Additionally, differences between projected and actual earnings on pension plan investments should be recognized in pension expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.



# Statement of Fiduciary Net Position as of June 30, 2019

## Assets

Cash and Deposits	\$ 2,359,886
Receivables	
Accounts Receivable - Sale of Investments	\$ 342,455
Accrued Interest and Other Dividends	324,892
Contributions	-
Accounts Receivable - Other	(558,638)
Total Receivables	<u>\$ 108,709</u>
Investments	
Fixed Income	\$ 43,960,620
Domestic Equities	18,504,795
International Equities	99,507,612
Real Estate	16,789,691
Other	-
Total Investments	<u>\$ 178,762,718</u>
<b>Total Assets</b>	<u><u>\$ 181,231,313</u></u>

## Liabilities

Payables	
Accounts Payable - Purchase of Investments	\$ 992,135
Accrued Expenses	-
Accounts Payable - Other	1,423,260
<b>Total Liabilities</b>	<u><u>\$ 2,415,395</u></u>
<b>Net Position Restricted for Pensions</b>	<u><u>\$ 178,815,918</u></u>

# Statement of Changes in Fiduciary Net Position for Fiscal Year Ended June 30, 2019

## Additions

### Contributions

Employer	\$ 3,618,125
Employee	397,502
Other	<u>61,132</u>
Total Contributions	<u>\$ 4,076,759</u>

### Investment Income

Net Appreciation in Fair Value of Investments	\$ 7,823,212
Interest and Dividends	3,377,407
Other Investment Income	101,246
Less Investment Expense	<u>(625,408)</u>
Net Investment Income	<u>\$ 10,676,457</u>

Other	<u>\$ -</u>
<b>Total Additions</b>	<u><b>\$ 14,753,216</b></u>

## Deductions

Benefit Payments, including refunds of Employee Contributions	\$ 11,188,757
Pension Plan Administrative Expense	51,520
Other	<u>-</u>
<b>Total Deductions</b>	<u><b>\$ 11,240,277</b></u>

<b>Net Increase in Net Position</b>	<b>\$ 3,512,939</b>
-------------------------------------	---------------------

## Net Position Restricted for Pensions

Beginning of Year	<u>\$ 175,302,979</u>
End of Year	<u><u>\$ 178,815,918</u></u>

## SECTION C

---

### REQUIRED SUPPLEMENTARY INFORMATION

# Schedule of Changes in Net Pension Liability and Related Ratios

## Current Period

### Fiscal Year Ended June 30, 2019

<b>A. Total Pension Liability</b>	
1. Service Cost	\$ 1,925,003
2. Interest on the Total Pension Liability	13,697,305
3. Changes of benefit terms	-
4. Difference between expected and actual experience of the Total Pension Liability	(1,353,221)
5. Changes of assumptions	-
6. Benefit payments, including refunds of employee contributions	(11,188,757)
7. Net change in Total Pension Liability	\$ 3,080,330
8. Total Pension Liability – Beginning	193,560,217
9. Total Pension Liability – Ending	<b>\$ 196,640,547</b>
<b>B. Plan Fiduciary Net Position</b>	
1. Contributions – Employer	\$ 3,618,125
2. Contributions – Employee	397,502
3. Net investment income	10,676,457
4. Benefit payments, including refunds of employee contributions	(11,188,757)
5. Pension plan administrative expense	(51,520)
6. Other	61,132
7. Net change in Plan Fiduciary Net Position	\$ 3,512,939
8. Plan Fiduciary Net Position – Beginning	175,302,979
9. Plan Fiduciary Net Position – Ending	<b>\$ 178,815,918</b>
<b>C. Net Pension Liability</b>	<b>\$ 17,824,629</b>
<b>D. Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>	<b>90.94%</b>
<b>E. Covered-Employee Payroll <sup>(1)</sup></b>	<b>\$ 11,413,503</b>
<b>F. Net Pension Liability as a percentage of Covered-Employee Payroll</b>	<b>156.17%</b>

<sup>(1)</sup> The amount provided represents the annual pays for members active on the valuation date and does not necessarily represent Covered Payroll as defined in GASB Statement Nos. 67 and 68.

# Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

## Ultimately 10 Fiscal Years Will Be Displayed

Fiscal year ending June 30,	2019	2018 <sup>(2)</sup>	2017	2016	2015	2014
<b>Total Pension Liability</b>						
Service Cost	\$ 1,925,003	\$ 1,992,324	\$ 2,105,464	\$ 2,440,062	\$ 2,479,014	\$ 2,272,260
Interest on the Total Pension Liability	13,697,305	13,380,227	13,394,875	12,910,605	11,279,185	11,646,809
Benefit Changes	-	-	-	-	(44,181)	(523,942)
Difference between expected and actual experience of the Total Pension Liability	(1,353,221)	-	(1,793,035)	1,656,314	(4,021,270)	630,488
Assumption Changes	-	-	(3,330,586)	-	22,369,832	-
Benefit Payments, including refunds of employee contributions	(11,188,757)	(10,742,059)	(10,302,308)	(10,017,879)	(9,063,647)	(8,607,231)
<b>Net Change in Total Pension Liability</b>	<b>3,080,330</b>	<b>4,630,492</b>	<b>74,410</b>	<b>6,989,102</b>	<b>22,998,933</b>	<b>5,418,385</b>
<b>Total Pension Liability - Beginning</b>	<b>193,560,217</b>	<b>188,929,725</b>	<b>188,855,315</b>	<b>181,866,213</b>	<b>158,867,280</b>	<b>153,448,895</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 196,640,547</b>	<b>\$ 193,560,217</b>	<b>\$ 188,929,725</b>	<b>\$ 188,855,315</b>	<b>\$ 181,866,213</b>	<b>\$158,867,280</b>
<b>Plan Fiduciary Net Position</b>						
Employer Contributions	\$ 3,618,125	\$ 4,696,432	\$ 4,924,584	\$ 3,949,470	\$ 4,262,117	\$ 4,179,682
Employee Contributions	397,502	386,110	380,084	260,361	228,734	228,227
Pension Plan Net Investment Income	10,676,457	14,066,430	18,492,932	2,815,481	8,117,781	22,862,601
Benefit Payments, including refunds of employee contributions	(11,188,757)	(10,742,059)	(10,302,308)	(10,017,879)	(9,063,647)	(8,607,231)
Pension Plan Administrative Expense	(51,520)	(53,812)	(34,837)	(57,081)	(22,092)	(42,160)
Other	61,132	107,714	50,913	42,564	(178,457)	(345,650)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>3,512,939</b>	<b>8,460,815</b>	<b>13,511,368</b>	<b>(3,007,084)</b>	<b>3,344,436</b>	<b>18,275,469</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>175,302,979</b>	<b>166,842,164</b>	<b>153,330,796</b>	<b>156,337,880</b>	<b>152,993,444</b>	<b>134,717,975</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 178,815,918</b>	<b>\$ 175,302,979</b>	<b>\$ 166,842,164</b>	<b>\$ 153,330,796</b>	<b>\$ 156,337,880</b>	<b>\$152,993,444</b>
<b>Net Pension Liability - Ending (a) - (b)</b>	<b>17,824,629</b>	<b>18,257,238</b>	<b>22,087,561</b>	<b>35,524,519</b>	<b>25,528,333</b>	<b>5,873,836</b>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>90.94 %</b>	<b>90.57 %</b>	<b>88.31 %</b>	<b>81.19 %</b>	<b>85.96 %</b>	<b>96.30 %</b>
<b>Covered-Employee Payroll <sup>(1)</sup></b>	<b>\$ 11,413,503</b>	<b>\$ 11,805,804</b>	<b>\$ 11,805,804</b>	<b>\$ 12,075,663</b>	<b>\$ 14,244,381</b>	<b>\$ 15,749,774</b>
<b>Net Pension Liability as a Percentage of Covered-Employee Payroll</b>	<b>156.17 %</b>	<b>154.65 %</b>	<b>187.09 %</b>	<b>294.18 %</b>	<b>179.22 %</b>	<b>37.29 %</b>

### Notes to Schedule:

<sup>(1)</sup> The amount provided represents the annual pays for members active on the valuation date and does not necessarily represent Covered Payroll as defined in GASB Statement Nos. 67 and 68.

<sup>(2)</sup> Effective with the 2018 measurement, the total pension liability was "rolled-forward" based on the prior year valuation member data using generally accepted actuarial principles.

# Schedule of Net Pension Liability Multiyear

Ultimately 10 Fiscal Years Will Be Displayed

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll <sup>(1)</sup>	Net Pension Liability as a % of Covered Payroll
2014	\$ 158,867,280	\$ 152,993,444	\$ 5,873,836	96.30%	\$ 15,749,774	37.29%
2015	181,866,213	156,337,880	25,528,333	85.96%	14,244,381	179.22%
2016	188,855,315	153,330,796	35,524,519	81.19%	12,075,663	294.18%
2017	188,929,725	166,842,164	22,087,561	88.31%	11,805,804	187.09%
2018 <sup>(2)</sup>	193,560,217	175,302,979	18,257,238	90.57%	11,805,804	154.65%
2019	196,640,547	178,815,918	17,824,629	90.94%	11,413,503	156.17%

<sup>(1)</sup> The amount provided represents the annual pays for members active on the valuation date and does not necessarily represent Covered Payroll as defined in GASB Statement Nos. 67 and 68.

<sup>(2)</sup> Effective with the 2018 measurement, the total pension liability was "rolled-forward" based on the prior year valuation member data using generally accepted actuarial principles.

# Schedule of Contributions

Ultimately 10 Fiscal Years Will Be Displayed

<b>FY Ending June 30,</b>	<b>Actuarially Determined Contribution</b>	<b>Actual Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll <sup>(1)</sup></b>	<b>Actual Contribution as a % of Covered Payroll</b>
2014	\$ 4,157,285	\$ 4,179,682	\$ (22,397)	\$ 15,749,774	26.54%
2015	4,287,998	4,262,117	25,881	14,244,381	29.92%
2016	3,906,139	3,949,470	(43,331)	12,075,663	32.71%
2017	4,917,556	4,924,584	(7,028)	11,805,804	41.71%
2018 <sup>(2)</sup>	4,628,523	4,696,432	(67,909)	11,805,804	39.78%
2019	3,628,289	3,618,125	10,164	11,413,503	31.70%

<sup>(1)</sup> The amount provided represents the annual pays for members active on the valuation date and does not necessarily represent Covered Payroll as defined in GASB Statement Nos. 67 and 68.

<sup>(2)</sup> Effective with the 2018 measurement, the total pension liability was "rolled-forward" based on the prior year valuation member data using generally accepted actuarial principles.

# Notes to Schedule of Contributions

**Valuation Date:**

Notes Actuarially determined contribution amounts for fiscal year 2019 are calculated based upon the results of the June 30, 2017 actuarial valuation.

**Methods and Assumptions Used to Determine Contribution Amounts for the Fiscal Year Ending June 30, 2019:**

Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	22 years
Asset Valuation Method	5-Year smoothed market
Inflation	2.75%
Salary Increases	3.5% to 7.3%, including 3.5% wage inflation
Investment Rate of Return	7.25%
Retirement Age	Age-based table of rates that are specific to the type of eligibility condition. Last updated for the June 30, 2015 valuation.
Mortality	RP-2014 Healthy Annuitant Mortality Table projected to 2020 using the MP-2014 mortality improvement scale; the mortality tables for disabled lives to the RP-2014 Disabled Retirees projected to 2020 using the MP-2014 mortality improvement scale; and the mortality tables for current active employees to the RP-2014 Mortality Tables for Employees projected to 2020 using the MP-2014 mortality improvement scale.

**Other Information:**

Cost-of-Living Adjustment Annual increase for those eligible is assumed to be 1.6% compounded annually for valuations prior to June 30, 2017. Starting with the June 30, 2017 valuation, the annual increase for those eligible is assumed to be 1.1% compounded annually.



# Schedule of Investment Returns

Ultimately 10 Fiscal Years Will Be Displayed

<b>FY Ending June 30,</b>	<b>Annual Return</b>
2014	16.92 %
2015	5.23 %
2016	1.79 %
2017	12.26 %
2018	8.60 %
2019	6.12 %

## SECTION D

---

### SCHEDULES BY EMPLOYER

## Schedule of Employer Allocations of Net Pension Liability (Including Sensitivity Analysis)

Employer	FY 2019 Employer Contributions	Proportionate Share <sup>(1)</sup>	Net Pension Liability		
			1% Decrease 6.25%	Current Single Discount Rate 7.25%	1% Increase 8.25%
General	\$ 649,360	17.94741752%	\$ 7,173,213	\$ 3,199,061	\$ (167,759)
Other Funds A	677,981	18.73846260%	7,489,378	3,340,061	(175,153)
Police	1,229,874	33.99202626%	13,585,913	6,058,953	(317,732)
Fire	360,780	9.97146312%	3,985,388	1,777,376	(93,206)
Other Funds B	700,130	19.35063051%	7,734,049	3,449,178	(180,875)
<b>Total<sup>(2)</sup></b>	<b>\$ 3,618,125</b>	<b>100.00000001%</b>	<b>\$ 39,967,941</b>	<b>\$ 17,824,629</b>	<b>\$ (934,725)</b>

<sup>(1)</sup> The Plan's auditor has identified the Plan as a single employer Plan. Given that the Plan has component units, GASB Statement No. 68, paragraph 18, requires that stand-alone financial statements for each government "...account for and report its participation in the single-employer or agent pension plan as if it was a cost-sharing employer and should apply the requirements of paragraphs 48-82." The proportionate shares determined above have been made on the basis of actual FY 2018 employer contributions and are in accordance with paragraph 49 of GASB Statement No. 68.

<sup>(2)</sup> Employer-level numbers may not add to collective-development numbers due to rounding.

## Schedule of Pension Amounts by Employer

	General	Other Funds A	Police	Fire	Other Funds B	Total <sup>(1)</sup>
<b>Net Pension Liability</b>	\$ 3,199,061	\$ 3,340,061	\$ 6,058,953	\$ 1,777,376	\$ 3,449,178	\$ 17,824,629
<b>Proportionate Share</b>	17.94741752%	18.73846260%	33.99202626%	9.97146312%	19.35063051%	100.00000001%
<b>Deferred Outflows of Resources</b>						
1. Differences Between Expected and Actual Experience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2. Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	-	-	-	-	-	-
3. Changes of Assumptions	-	-	-	-	-	-
4. Changes in Proportion and Differences Between Employer Contributions and Share of Contributions	-	147,506	340,297	159,615	232,268	879,686
5. Total Deferred Outflows of Resources	-	147,506	340,297	159,615	232,268	879,686
<b>Deferred Inflows of Resources</b>						
1. Differences Between Expected and Actual Experience	\$ (112,343)	\$ (117,295)	\$ (212,775)	\$ (62,417)	\$ (121,127)	\$ (625,957)
2. Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	(223,751)	(233,613)	(423,780)	(124,315)	(241,245)	(1,246,704)
3. Changes of Assumptions	-	-	-	-	-	-
4. Changes in Proportion and Differences Between Employer Contributions and Share of Contributions	(749,992)	-	-	(16,137)	(113,556)	(879,685)
5. Total Deferred Inflows of Resources	(1,086,086)	(350,908)	(636,555)	(202,869)	(475,928)	(2,752,346)
<b>Pension Expense</b>						
1. Proportionate Share of Plan Pension Expense	\$ 357,600	\$ 373,361	\$ 677,286	\$ 198,680	\$ 385,558	\$ 1,992,485
2. Net Amortization of Deferred Amounts from						
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	(3,325,221)	332,291	822,839	22,659	2,147,432	-
3. Total Employer Pension Expense	(2,967,621)	705,652	1,500,125	221,339	2,532,990	1,992,485

<sup>(1)</sup> Employer-level numbers may not add to collective-development numbers due to rounding.

# Schedule of Deferred Resources by Employer by Year

## Schedule of Deferred (Inflows) and Outflows

Employer	2020	2021	2022	2023
General	\$ (849,749)	\$ (285,626)	\$ (14,368)	\$ 63,654
Other Funds A	43,354	(298,214)	(15,000)	66,458
Police	151,362	(540,968)	(27,211)	120,561
Fire	88,055	(158,691)	(7,982)	35,364
Other Funds B	11,157	(307,957)	(15,490)	68,630
<b>Total <sup>(1)</sup></b>	<b>\$ (555,821)</b>	<b>\$ (1,591,456)</b>	<b>\$ (80,051)</b>	<b>\$ 354,667</b>

<sup>(1)</sup> Employer-level numbers may not add to collective-development numbers due to rounding.

## SECTION E

---

### NOTES TO FINANCIAL STATEMENTS

## Long-Term Expected Return on Plan Assets

The assumed rate of investment return was adopted by the plan's trustees after considering input from the plan's investment consultant(s) and actuary(s). Additional information about the assumed rate of investment return is included in our actuarial valuation report as of June 30, 2018.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the pension plan's target asset allocation as of June 30, 2019, the best estimates are summarized in the following table:

### Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity <sup>(1)</sup>	44.00%	4.80%
International equity <sup>(2)</sup>	16.00%	4.75%
Fixed income	33.00%	1.50%
Real estate	7.00%	4.00%
Cash	0.00%	0.25%
<b>Total</b>	<b>100.00%</b>	

<sup>(1)</sup> The City of Wyoming's policy target for Domestic Equity: 35% S&P 500 and 9% Russell 2000 Index. For projection purposes, Callan models the Russell 2500 Index for small/mid cap equities.

<sup>(2)</sup> The City of Wyoming's policy target for International Equity is the MSCI EAFE Index. For projection purposes, Callan models the MSCI World ex-US Index for developed international equities.

The best estimate geometric real rates of return in the above table were supplied by the Retirement System's investment manager, Callen Associates, Inc. The real rates of return above are based on the investment manager's inflation assumption of 2.25%.

Gabriel, Roeder, Smith & Company does not provide investment advice.

## Single Discount Rate

A Single Discount Rate of 7.25% was used to measure the Total Pension Liability. This Single Discount Rate was based on the expected rate of return on pension plan investments of 7.25%. Based on the System's current funding policy and the City's practice of contributing 100% of the recommended contribution, it is the opinion of the actuaries that the Plan Fiduciary Net Position is sufficient to make all future projected benefit payments, assuming all other assumptions are realized. Therefore, the Single Discount Rate would equal the long-term expected rate of return of 7.25%.

Regarding the sensitivity of the Net Pension Liability to changes in the Single Discount Rate, the following presents the plan's Net pension Liability, calculated using a Single Discount Rate of 7.25%, as well as what the plan's Net Pension Liability would be if it were calculated using a Single Discount Rate that is 1-percentage-point lower or 1-percentage-point higher:

### Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

	Current Single Discount		
	1% Decrease 6.25%	Rate Assumption 7.25%	1% Increase 8.25%
<b>Total Pension Liability</b>	\$ 218,783,859	\$ 196,640,547	\$ 177,881,192
<b>Plan Fiduciary Net Position</b>	178,815,918	178,815,918	178,815,918
<b>Net Pension Liability/(Asset)</b>	\$ 39,967,941	\$ 17,824,629	\$ (934,726)



## Disclosure Regarding the Deferred Retirement Option Program (DROP) for Police Officers

<b>Year Ended June 30,</b>	<b>Balance at Beginning of Year</b>	<b>Credits</b>	<b>Interest</b>	<b>Distributions</b>	<b>Adjustments</b>	<b>Balance at End of Year</b>
2014	\$ 100,395	\$ 98,453	\$ 4,013	\$ -	\$ -	\$ 202,861
2015	202,861	78,233	-	(281,094)	-	-
2016	-	42,564	-	-	-	42,564
2017	42,564	50,913	1,703	-	-	95,180
2018	95,180	107,714	3,807	-	-	206,701
2019	206,701	61,132	2,272	(152,501)	-	117,604

## Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	402
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	63
Active Plan Members	<u>148</u>
Total Plan Members	613

## SECTION F

---

### SUMMARY OF BENEFITS

# Summary of Benefit Provisions Evaluated or Considered

## Regular Retirement (no reduction factor for age):

### **Eligibility –**

General: *Other General members* age 60 with 10 or more years of credited service.

*Administrative and Contract members* age 60 with 5 or more years of credited service.

*Emergency Communications Operators members* age 55 with 10 or more years of credited service.

Police: Age 50 with 10 or more years of credited service.

Fire: Age 50 with 10 or more years of credited service.

### **Annual Amount –**

General: *Other General members* 2.35% of FAS times credited service (1.95% of FAS beginning June 30, 2016 if they elect not to contribute 2% of base wages).

*Administrative and Contract members* 2.35% of FAS times credited service (2.15% of FAS beginning July 1, 2016 and 1.95% of FAS beginning July 1, 2018 if they elect not to contribute 1% of base wages beginning July 1, 2016 and 2% of base wages beginning July 1, 2018).

*Emergency Communications Operators members* 2.35% of FAS times credited service.

Police: *Police Command members* 2.70% of FAS times credited service up to 30 years.

*Police Patrol members* 2.70% of FAS times credited service up to 30 years.

Fire: 2.70% of FAS times credited service up to 30 years.

**Final Average Salary (FAS)** – Average of annual compensations for the period of 3 consecutive years producing the highest average and contained within the last 5 years immediately preceding retirement. Effective July 1, 2016, FAS for 'Other General Members' no longer includes overtime.

## DROP

**Eligibility** – Police Command meeting regular retirement eligibility.

**DROP Account** – Monthly additions of 100% of regular retirement benefit under option elected at time of DROP accumulated at 4% annual interest. Maximum period of accumulation is 3 years.

**Distributions** – Lump sum payment of DROP account at time of exit from employment plus direct payment of future monthly retirement benefits under option elected at time of DROP.

# Summary of Benefit Provisions Evaluated or Considered (Continued)

## Early Retirement (age reduction factor used):

### **Eligibility –**

General: *Other General members* age 55 with 10 or more years of credited service.

*Administrative and Contract members* age 55 with 5 or more years of credited service.

**Annual Amount** – Computed in the same manner as regular retirement amount, but for *Other General members* reduced by .002 for each month age at early retirement precedes regular retirement age. For retirements of *Other General members* on or after June 30, 2016 the reduction shall be .001 if the member has 25 or more years of service. For retirements of *Administrative and Contract members* on or after July 1, 2007, there will be no reduction factor unless they became a member of the unit (transferred from another unit) after July 1, 2007 and have less than 25 years of service.

## Deferred Retirement (vested benefit):

### **Eligibility –**

General: *Other General members* any age with 10 or more years of credited service.

*Administrative and Contract members* any age with 5 or more years of credited service.

*Emergency Communications Operators members* any age with 10 or more years of credited service.

Police: Any age with 10 or more years of credited service.

Fire: Any age with 10 or more years of credited service.

**Annual Amount** – Accrued regular retirement amount based on credited service and FAS at time of termination, payable beginning at age 60 for General, age 50 for Police and age 50 for Fire.

## Duty Disability Retirement:

**Eligibility** – Total and permanent disability incurred in line of duty with the city for which worker's compensation is being paid.

**Annual Amount** – Computed in same manner as the regular retirement amount based on credited service and FAS at time of termination. Minimum service credit used is 10 years.

Police and Fire: Normal retirement benefit calculation will be re-adjusted at normal retirement age (50) to include the time the member was receiving disability benefit and will be based on the monthly average the member would have earned during the 36 months preceding normal retirement age if the member was actively employed.

# Summary of Benefit Provisions Evaluated or Considered (Continued)

## Non-Duty Disability Retirement:

General: *Other General members* total and permanent disability after 10 or more years of credited service.

*Administrative and Contract members* total and permanent disability after 5 or more years of credited service.

*Emergency Communications Operators members* total and permanent disability after 10 or more years of credited service. This unit does not have any active members and this no longer applies.

Police: Total and permanent disability after 10 or more years of credited service.

Fire: Total and permanent disability after 10 or more years of credited service.

**Annual Amount** - Computed in same manner as the regular retirement amount based on credited service and FAS at time of termination.

## Duty Death Before Retirement:

**Eligibility** - Death in line of duty with the city for which worker's compensation is being paid.

**Annual Amount** - Refund of member's accumulated contributions. Amount to surviving spouse and children computed in same manner as the regular retirement amount based on credited service and FAS at time of death with a minimum of 25% of member's FAS. Additional amount to spouse continues to remarriage or death. Additional amount to children continues to earlier of marriage or attainment of age 18 years.

## Non-Duty Death Before Retirement:

**Eligibility** - Any age with 10 or more years of credited service, 5 or more years of credited service for Administrative members.

**Annual Amount** - Option A actuarial equivalent of regular retirement amount based on credited service and FAS at time of death for spouse or qualified dependent. Option C for non-spouse benefit, in absence of spouse or with agreement of spouse.

# Summary of Benefit Provisions Evaluated or Considered (Concluded)

## Member Contributions:

General:	<i>Other General members</i> 2% of base wages to keep 2.35% multiplier (effective June 30, 2016).	
	<i>Administrative and Contract members</i> 1% of base wages (effective June 30, 2016) and 2% of base wages (effective June 30, 2018) to keep 2.35% multiplier.	
Police:	<i>Police Command</i>	4.59% of gross pay effective July 1, 2015 5.59% of gross pay effective July 1, 2016.
	<i>Police Patrol</i>	4.59% of gross pay effective July 1, 2015 5.59% of gross pay effective July 1, 2016.
Fire:	4.50% of gross pay effective January 1, 2016 5.00% of gross pay effective July 1, 2016 6.00% of gross pay effective July 1, 2017.	

**City Contributions:** Actuarially determined amounts which are sufficient to cover both: 1) normal costs of the plan; and 2) financing of unfunded actuarial accrued liabilities over a selected period of future years.

**Automatic Post-Retirement Adjustments:** Annual increase for Police Command members (at least 60 years of age who retire after July 1, 1992 and on or before July 1, 2008) and Administrative members equal to 40% of the average annual increase in CPI, except in 2007 when contract language specified no increase. Increase is limited to 5% per year.

**Defined Contribution Plan:** The Defined Benefit plan is closed to new hires. New members are automatically enrolled in the Defined Contribution plan.

## SECTION G

---

### **ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS**



## Actuarial Cost Methods

**Actuarial Cost Method** - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

## Actuarial Assumptions Used for the Valuation

Assumptions were reviewed and updated based on the 2010-2014 Experience Study, which includes the rationale for these assumptions.

**The rate of investment return (an economic assumption)** used was 7.25% a year, compounded annually. This assumption was first used for the June 30, 2015 valuation. The assumption consists of 3.75% for assuming maturity and principal risks (real return) and 3.50% in recognition of wage inflation. This assumption is used to discount the value of future payments.

**The rate of price inflation.** A rate of price inflation of 2.75% is consistent with our economic assumptions in this report.

**The rates of salary increase (an economic assumption)** used are in accordance with the following graded table. These assumptions were first used for the June 30, 2015 valuation. The assumption consists of 3.50% in recognition of wage inflation and a graded allowance for promotion and longevity.

The assumption is used to project current salaries to those upon which pension amounts will be based.

Sample Ages	Present Salary Resulting in Salary of \$1,000		Percent Increase in Salary During Next Year	
	At Age 65 General*	At Age 60 Police-Fire	General*	Police-Fire
20	\$ 98	\$ 164	7.3 %	6.5 %
25	138	224	6.6	6.5
30	188	305	6.2	6.1
35	253	401	5.9	4.6
40	335	489	5.6	3.7
45	437	586	5.2	3.7
50	557	703	4.6	3.7
55	692	840	4.2	3.6
60	840	1,000	3.7	3.5
65	1,000	---	3.5	3.5

\* Includes General, Other Funds A, and Other Funds B members.

## Actuarial Assumptions Used for the Valuation

**The mortality table (a risk assumption)** used was the RP-2014 Healthy Annuitant Mortality Table projected to 2020 using the MP-2014 mortality improvement scale. This assumption is used to measure the probabilities of each pension payment being made after retirement. This table was first used for the June 30, 2015 valuation. The provision for future improvements in mortality is built into the projection to 2020. Sample values follow:

Sample Ages	Single Life Retirement Values			
	Present Value of		Future Life	
	\$1 Monthly for Life		Expectancy (Years)	
	Men	Women	Men	Women
50	\$149.16	\$153.03	34.78	37.43
55	142.94	147.51	30.37	32.87
60	135.28	140.37	26.10	28.39
65	125.73	131.33	21.97	24.04
70	114.04	120.19	18.02	19.87
75	100.16	106.86	14.31	15.96
80	84.33	91.54	10.92	12.36

For disabled retirees, the mortality table used to measure the probabilities of each pension payment being made after retirement was the RP-2014 Mortality Table for Disabled Retirees projected to 2020 using the MP-2014 mortality improvement scale.

For active employees, the mortality table used to measure the probabilities of dying before retirement was the RP-2014 Mortality Table for Employees projected to 2020 using the MP-2014 mortality improvement scale.

## Actuarial Assumptions Used for the Valuation

**The rates of retirement (a risk assumption)** used to measure the probability of eligible members retiring during the year following attainment of the indicated age were as follows:

Age	Number Retiring Per 100 Eligible		
	General*	Police	Fire
50	-	30	30
51	-	20	20
52	-	15	15
53	-	15	15
54	-	15	15
55	20	10	10
56	10	10	10
57	10	15	15
58	10	25	25
59	10	30	30
60	30	100	100
61	20	100	100
62	30	100	100
63	20	100	100
64	20	100	100
65	30	100	100
66	30	100	100
67	40	100	100
68	50	100	100
69	60	100	100
70	100	100	100

\* Includes General, Other Funds A, and Other Funds B members.

The General rates were first used for the June 30, 2015 valuation; Police and Fire rates were first used for the June 30, 2001 valuation.

## Actuarial Assumptions Used for the Valuation

**Rates of separation from active membership (a risk assumption)** were as follows: (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	Number Separating Within Next Year (Per 100 Members)		
		General*	Police	Fire
ALL	0	15.00	8.00	8.00
	1	10.00	6.00	6.00
	2	8.00	4.50	4.50
	3	7.00	3.00	3.00
	4	6.00	2.00	2.00
25	5 & Over	5.00	2.50	2.50
30		4.50	2.00	2.00
35		3.55	1.10	1.10
40		1.45	0.40	0.40
45		0.75	0.40	0.40
50		0.75	0.40	0.40
55		0.75	0.40	0.40
60		0.75	0.40	0.40
65		0.75	0.40	0.40

\* Includes General, Other Funds A, and Other Funds B members.

Rates for General and Police were revised effective June 30, 2001.

**Rates of disability (a risk assumption)** measure the probabilities of active members retiring with a disability benefit.

Sample Ages	% of Active Members Becoming Disabled Within Next Year		
	General *	Police	Fire
20	0.15 %	0.10 %	0.10 %
25	0.18	0.15	0.15
30	0.20	0.25	0.20
35	0.29	0.30	0.25
40	0.42	0.70	0.50
45	0.65	0.80	0.65
50	1.05	0.95	0.80
55	1.84	1.10	0.95
60	3.06	1.20	1.00

\* Includes General, Other Funds A, and Other Funds B members.

Rates for General and Police were revised effective June 30, 2001.

## Miscellaneous and Technical Assumptions

<b>Marriage Assumption:</b>	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits.
<b>Pay Increase Timing:</b>	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Benefit Service:</b>	Exact fractional service is used to determine the amount of benefit payable.
<b>Decrement Relativity:</b>	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
<b>Decrement Operation:</b>	Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.
<b>Normal Form of Benefit:</b>	The assumed normal form of benefit is the straight life form.
<b>Cost-of-Living Adjustment:</b>	Annual increase for those eligible assumed to be 1.6% annually for valuations prior to June 30, 2017. Starting with the June 30, 2017 valuation, annual increase for those eligible assumed to be 1.1% annually.

## SECTION H

---

### **CALCULATION OF THE SINGLE DISCOUNT RATE**

## Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk-free” rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.13% and the resulting SDR is 7.25%.

The tables in this section provide background for the development of the Single Discount Rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.



# Single Discount Rate Development

## Projection of Contributions

Year		Projected Payroll for Current Employees	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
1	\$	10,761,535	\$ 382,824	\$ 1,453,772	\$ 1,686,718	\$ 3,523,314
2		10,303,546	368,722	1,358,549	1,718,791	3,446,062
3		9,821,647	352,459	1,287,255	1,703,640	3,343,354
4		9,146,982	329,568	1,188,403	1,614,857	3,132,827
5		8,385,033	302,792	1,078,487	1,591,496	2,972,774
6		7,629,058	277,631	968,419	1,591,496	2,837,546
7		6,819,321	251,761	851,868	1,591,496	2,695,125
8		5,984,565	222,812	737,033	1,591,496	2,551,341
9		5,248,689	193,329	640,214	1,591,496	2,425,039
10		4,644,248	167,109	564,181	1,591,496	2,322,786
11		4,079,412	144,522	492,486	1,591,496	2,228,504
12		3,532,987	123,788	422,686	1,591,496	2,137,970
13		2,976,713	103,502	351,757	1,591,496	2,046,754
14		2,469,367	84,643	288,345	1,591,496	1,964,484
15		2,037,636	68,227	234,900	1,591,496	1,894,623
16		1,703,008	55,409	195,394	1,591,496	1,842,299
17		1,418,542	43,425	163,521	1,591,496	1,798,442
18		1,145,993	31,773	132,771	1,591,496	1,756,040
19		892,691	22,786	103,026	1,591,496	1,717,308
20		690,661	16,955	78,632	1,591,496	1,687,083
21		547,222	13,365	61,892	1,591,496	1,666,753
22		430,295	10,344	48,368	-	58,712
23		339,445	7,880	37,956	-	45,836
24		259,060	6,008	28,873	-	34,881
25		184,041	4,037	20,369	-	24,406
26		125,944	2,519	13,781	-	16,300
27		87,473	1,749	9,509	-	11,258
28		62,802	1,256	6,791	-	8,047
29		43,081	862	4,660	-	5,521
30		28,356	567	3,080	-	3,648
31		17,559	351	1,920	-	2,271
32		9,407	188	1,037	-	1,225
33		4,490	90	487	-	577
34		1,324	26	148	-	175
35		-	-	-	-	-
36		-	-	-	-	-
37		-	-	-	-	-
38		-	-	-	-	-
39		-	-	-	-	-
40		-	-	-	-	-
41		-	-	-	-	-
42		-	-	-	-	-
43		-	-	-	-	-
44		-	-	-	-	-
45		-	-	-	-	-
46		-	-	-	-	-
47		-	-	-	-	-
48		-	-	-	-	-
49		-	-	-	-	-
50		-	-	-	-	-

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

## Single Discount Rate Development Projection of Contributions (Concluded)

Year	Projected Payroll for Current Employees	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
51	-	-	-	-	-
52	-	-	-	-	-
53	-	-	-	-	-
54	-	-	-	-	-
55	-	-	-	-	-
56	-	-	-	-	-
57	-	-	-	-	-
58	-	-	-	-	-
59	-	-	-	-	-
60	-	-	-	-	-
61	-	-	-	-	-
62	-	-	-	-	-
63	-	-	-	-	-
64	-	-	-	-	-
65	-	-	-	-	-
66	-	-	-	-	-
67	-	-	-	-	-
68	-	-	-	-	-
69	-	-	-	-	-
70	-	-	-	-	-
71	-	-	-	-	-
72	-	-	-	-	-
73	-	-	-	-	-
74	-	-	-	-	-
75	-	-	-	-	-
76	-	-	-	-	-
77	-	-	-	-	-
78	-	-	-	-	-
79	-	-	-	-	-
80	-	-	-	-	-
81	-	-	-	-	-
82	-	-	-	-	-
83	-	-	-	-	-
84	-	-	-	-	-
85	-	-	-	-	-
86	-	-	-	-	-
87	-	-	-	-	-
88	-	-	-	-	-
89	-	-	-	-	-
90	-	-	-	-	-
91	-	-	-	-	-
92	-	-	-	-	-
93	-	-	-	-	-
94	-	-	-	-	-
95	-	-	-	-	-
96	-	-	-	-	-
97	-	-	-	-	-
98	-	-	-	-	-
99	-	-	-	-	-
100	-	-	-	-	-

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

# Single Discount Rate Development

## Projection of Plan Fiduciary Net Position

Year		Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
		(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
1	\$	178,815,918	\$ 3,523,314	\$ 11,788,037	\$ 12,669,800	\$ 183,220,995
2		183,220,995	3,446,062	12,302,099	12,968,108	187,333,065
3		187,333,065	3,343,354	12,796,825	13,244,955	191,124,549
4		191,124,549	3,132,827	13,381,435	13,491,518	194,367,460
5		194,367,460	2,972,774	14,013,857	13,698,404	197,024,782
6		197,024,782	2,837,546	14,730,345	13,860,726	198,992,709
7		198,992,709	2,695,125	15,382,246	13,975,110	200,280,698
8		200,280,698	2,551,341	16,032,436	14,040,211	200,839,814
9		200,839,814	2,425,039	16,815,712	14,048,352	200,497,492
10		200,497,492	2,322,786	17,263,896	14,003,929	199,560,311
11		199,560,311	2,228,504	17,774,191	13,914,451	197,929,075
12		197,929,075	2,137,970	18,051,026	13,783,102	195,799,122
13		195,799,122	2,046,754	18,426,376	13,612,064	193,031,564
14		193,031,564	1,964,484	18,679,202	13,399,481	189,716,327
15		189,716,327	1,894,623	18,816,639	13,151,743	185,946,055
16		185,946,055	1,842,299	18,871,097	12,874,595	181,791,852
17		181,791,852	1,798,442	18,864,176	12,572,100	177,298,218
18		177,298,218	1,756,040	18,785,851	12,247,591	172,515,998
19		172,515,998	1,717,308	18,597,729	11,906,201	167,541,778
20		167,541,778	1,687,083	18,391,625	11,551,834	162,389,070
21		162,389,070	1,666,753	18,114,063	11,187,424	157,129,184
22		157,129,184	58,712	17,784,046	10,760,565	150,164,415
23		150,164,415	45,836	17,395,852	10,268,986	143,083,384
24		143,083,384	34,881	16,977,877	9,770,108	135,910,496
25		135,910,496	24,406	16,525,389	9,265,816	128,675,329
26		128,675,329	16,300	16,024,289	8,758,825	121,426,165
27		121,426,165	11,258	15,481,644	8,252,407	114,208,187
28		114,208,187	8,047	14,904,367	7,749,550	107,061,416
29		107,061,416	5,521	14,303,201	7,252,730	100,016,466
30		100,016,466	3,648	13,681,327	6,764,053	93,102,840
31		93,102,840	2,271	13,043,786	6,285,472	86,346,797
32		86,346,797	1,225	12,395,198	5,818,722	79,771,545
33		79,771,545	577	11,738,416	5,365,385	73,399,091
34		73,399,091	175	11,078,064	4,926,887	67,248,088
35		67,248,088	-	10,416,711	4,504,487	61,335,864
36		61,335,864	-	9,757,558	4,099,327	55,677,634
37		55,677,634	-	9,104,353	3,712,370	50,285,651
38		50,285,651	-	8,459,288	3,344,426	45,170,789
39		45,170,789	-	7,824,405	2,996,210	40,342,594
40		40,342,594	-	7,201,656	2,668,346	35,809,283
41		35,809,283	-	6,593,014	2,361,358	31,577,627
42		31,577,627	-	6,000,555	2,075,664	27,652,736
43		27,652,736	-	5,426,608	1,811,551	24,037,678
44		24,037,678	-	4,873,771	1,569,149	20,733,056
45		20,733,056	-	4,344,787	1,348,404	17,736,673
46		17,736,673	-	3,842,466	1,149,056	15,043,264
47		15,043,264	-	3,369,467	970,630	12,644,427
48		12,644,427	-	2,928,113	812,434	10,528,748
49		10,528,748	-	2,520,360	673,570	8,681,958
50		8,681,958	-	2,147,721	552,949	7,087,185

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

# Single Discount Rate Development

## Projection of Plan Fiduciary Net Position (Concluded)

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
51	\$ 7,087,185	\$ -	\$ 1,811,121	\$ 449,316	\$ 5,725,381
52	5,725,381	-	1,510,798	361,282	4,575,865
53	4,575,865	-	1,246,273	287,363	3,616,955
54	3,616,955	-	1,016,322	226,032	2,826,665
55	2,826,665	-	819,063	175,762	2,183,364
56	2,183,364	-	652,130	135,068	1,666,301
57	1,666,301	-	512,812	102,543	1,256,032
58	1,256,032	-	398,177	76,881	934,736
59	934,736	-	305,192	56,899	686,442
60	686,442	-	230,837	41,546	497,151
61	497,151	-	172,211	29,910	354,849
62	354,849	-	126,647	21,216	249,418
63	249,418	-	91,750	14,815	172,484
64	172,484	-	65,422	10,175	117,237
65	117,237	-	45,868	6,866	78,235
66	78,235	-	31,584	4,547	51,199
67	51,199	-	21,332	2,952	32,819
68	32,819	-	14,113	1,877	20,583
69	20,583	-	9,133	1,167	12,616
70	12,616	-	5,775	709	7,550
71	7,550	-	3,562	421	4,408
72	4,408	-	2,142	243	2,510
73	2,510	-	1,254	137	1,393
74	1,393	-	715	76	753
75	753	-	396	41	398
76	398	-	214	21	205
77	205	-	113	11	103
78	103	-	58	5	51
79	51	-	29	3	25
80	25	-	14	1	12
81	12	-	7	1	5
82	5	-	3	0	2
83	2	-	2	0	1
84	1	-	1	0	0
85	0	-	0	0	0
86	0	-	0	0	0
87	0	-	0	0	0
88	0	-	0	0	0
89	0	-	-	0	0
90	0	-	-	0	0
91	0	-	-	0	0
92	0	-	-	0	0
93	0	-	-	0	0
94	0	-	-	0	0
95	0	-	-	0	0
96	0	-	-	0	0
97	0	-	-	0	0
98	0	-	-	0	0
99	0	-	-	0	0
100	0	-	-	0	0

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

# Single Discount Rate Development

## Present Values of Projected Benefits

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf^((a)-.5)	(h)=(c)/(1+sd r)^(a-.5)
1	\$ 178,815,918	\$ 11,788,037	\$ 11,788,037	\$ -	\$ 11,382,636	\$ -	\$ 11,382,636
2	183,220,995	12,302,099	12,302,099	-	11,076,008	-	11,076,008
3	187,333,065	12,796,825	12,796,825	-	10,742,590	-	10,742,590
4	191,124,549	13,381,435	13,381,435	-	10,473,989	-	10,473,989
5	194,367,460	14,013,857	14,013,857	-	10,227,508	-	10,227,508
6	197,024,782	14,730,345	14,730,345	-	10,023,693	-	10,023,693
7	198,992,709	15,382,246	15,382,246	-	9,759,718	-	9,759,718
8	200,280,698	16,032,436	16,032,436	-	9,484,616	-	9,484,616
9	200,839,814	16,815,712	16,815,712	-	9,275,519	-	9,275,519
10	200,497,492	17,263,896	17,263,896	-	8,879,008	-	8,879,008
11	199,560,311	17,774,191	17,774,191	-	8,523,504	-	8,523,504
12	197,929,075	18,051,026	18,051,026	-	8,071,104	-	8,071,104
13	195,799,122	18,426,376	18,426,376	-	7,681,989	-	7,681,989
14	193,031,564	18,679,202	18,679,202	-	7,260,972	-	7,260,972
15	189,716,327	18,816,639	18,816,639	-	6,819,950	-	6,819,950
16	185,946,055	18,871,097	18,871,097	-	6,377,332	-	6,377,332
17	181,791,852	18,864,176	18,864,176	-	5,944,049	-	5,944,049
18	177,298,218	18,785,851	18,785,851	-	5,519,225	-	5,519,225
19	172,515,998	18,597,729	18,597,729	-	5,094,597	-	5,094,597
20	167,541,778	18,391,625	18,391,625	-	4,697,564	-	4,697,564
21	162,389,070	18,114,063	18,114,063	-	4,313,911	-	4,313,911
22	157,129,184	17,784,046	17,784,046	-	3,949,013	-	3,949,013
23	150,164,415	17,395,852	17,395,852	-	3,601,691	-	3,601,691
24	143,083,384	16,977,877	16,977,877	-	3,277,531	-	3,277,531
25	135,910,496	16,525,389	16,525,389	-	2,974,526	-	2,974,526
26	128,675,329	16,024,289	16,024,289	-	2,689,352	-	2,689,352
27	121,426,165	15,481,644	15,481,644	-	2,422,638	-	2,422,638
28	114,208,187	14,904,367	14,904,367	-	2,174,642	-	2,174,642
29	107,061,416	14,303,201	14,303,201	-	1,945,854	-	1,945,854
30	100,016,466	13,681,327	13,681,327	-	1,735,433	-	1,735,433
31	93,102,840	13,043,786	13,043,786	-	1,542,716	-	1,542,716
32	86,346,797	12,395,198	12,395,198	-	1,366,906	-	1,366,906
33	79,771,545	11,738,416	11,738,416	-	1,206,972	-	1,206,972
34	73,399,091	11,078,064	11,078,064	-	1,062,073	-	1,062,073
35	67,248,088	10,416,711	10,416,711	-	931,159	-	931,159
36	61,335,864	9,757,558	9,757,558	-	813,274	-	813,274
37	55,677,634	9,104,353	9,104,353	-	707,534	-	707,534
38	50,285,651	8,459,288	8,459,288	-	612,964	-	612,964
39	45,170,789	7,824,405	7,824,405	-	528,634	-	528,634
40	40,342,594	7,201,656	7,201,656	-	453,669	-	453,669
41	35,809,283	6,593,014	6,593,014	-	387,252	-	387,252
42	31,577,627	6,000,555	6,000,555	-	328,627	-	328,627
43	27,652,736	5,426,608	5,426,608	-	277,104	-	277,104
44	24,037,678	4,873,771	4,873,771	-	232,050	-	232,050
45	20,733,056	4,344,787	4,344,787	-	192,881	-	192,881
46	17,736,673	3,842,466	3,842,466	-	159,050	-	159,050
47	15,043,264	3,369,467	3,369,467	-	130,043	-	130,043
48	12,644,427	2,928,113	2,928,113	-	105,370	-	105,370
49	10,528,748	2,520,360	2,520,360	-	84,566	-	84,566
50	8,681,958	2,147,721	2,147,721	-	67,191	-	67,191

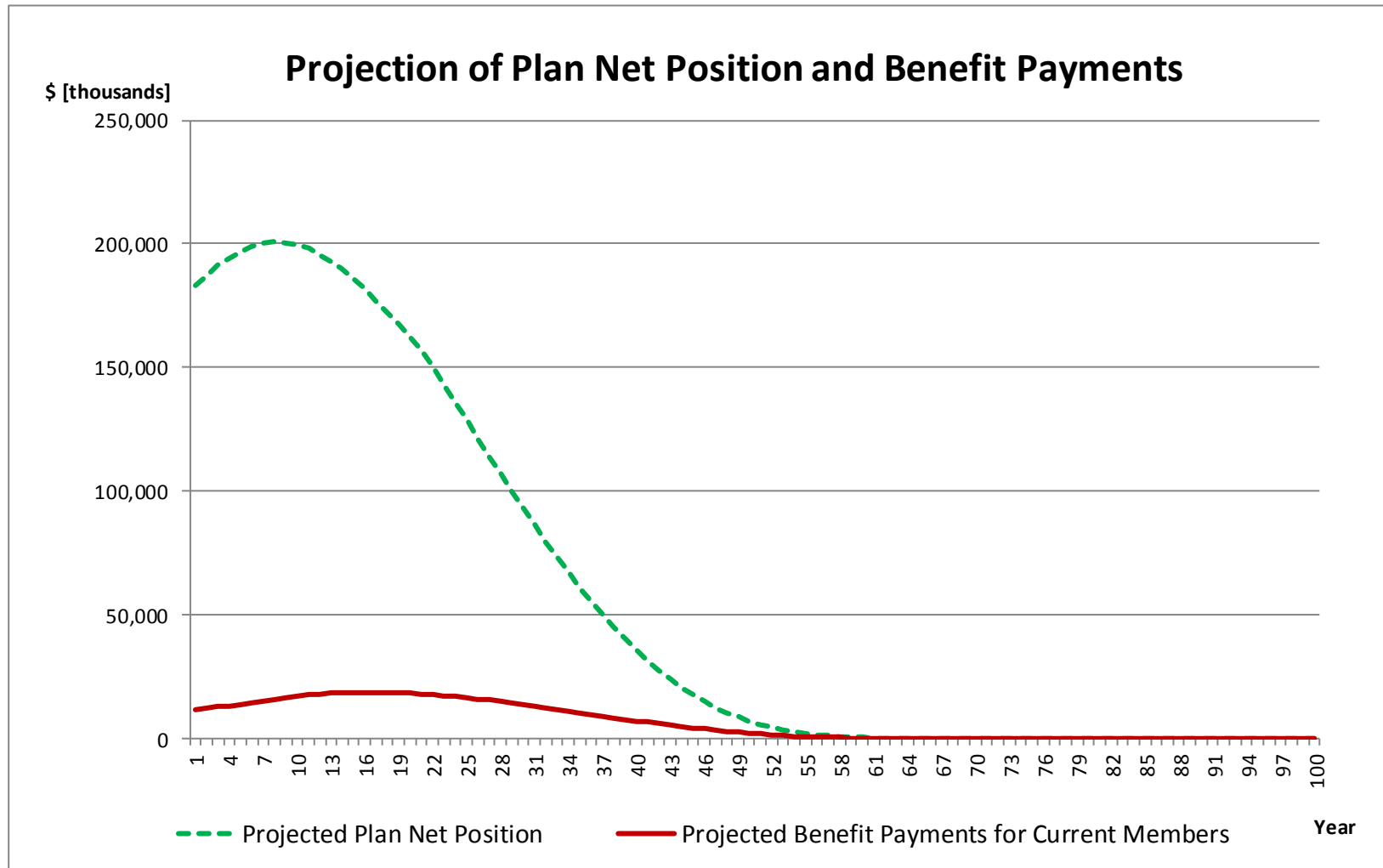
The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

# Single Discount Rate Development

## Present Values of Projected Benefits (Concluded)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/((1+sdr)^((a)-.5))
51	\$ 7,087,185	\$ 1,811,121	\$ 1,811,121	\$ -	\$ 52,830	\$ -	\$ 52,830
52	5,725,381	1,510,798	1,510,798	-	41,091	-	41,091
53	4,575,865	1,246,273	1,246,273	-	31,605	-	31,605
54	3,616,955	1,016,322	1,016,322	-	24,031	-	24,031
55	2,826,665	819,063	819,063	-	18,058	-	18,058
56	2,183,364	652,130	652,130	-	13,406	-	13,406
57	1,666,301	512,812	512,812	-	9,829	-	9,829
58	1,256,032	398,177	398,177	-	7,116	-	7,116
59	934,736	305,192	305,192	-	5,085	-	5,085
60	686,442	230,837	230,837	-	3,586	-	3,586
61	497,151	172,211	172,211	-	2,495	-	2,495
62	354,849	126,647	126,647	-	1,711	-	1,711
63	249,418	91,750	91,750	-	1,156	-	1,156
64	172,484	65,422	65,422	-	768	-	768
65	117,237	45,868	45,868	-	502	-	502
66	78,235	31,584	31,584	-	322	-	322
67	51,199	21,332	21,332	-	203	-	203
68	32,819	14,113	14,113	-	125	-	125
69	20,583	9,133	9,133	-	76	-	76
70	12,616	5,775	5,775	-	45	-	45
71	7,550	3,562	3,562	-	26	-	26
72	4,408	2,142	2,142	-	14	-	14
73	2,510	1,254	1,254	-	8	-	8
74	1,393	715	715	-	4	-	4
75	753	396	396	-	2	-	2
76	398	214	214	-	1	-	1
77	205	113	113	-	1	-	1
78	103	58	58	-	0	-	0
79	51	29	29	-	0	-	0
80	25	14	14	-	0	-	0
81	12	7	7	-	0	-	0
82	5	3	3	-	0	-	0
83	2	2	2	-	0	-	0
84	1	1	1	-	0	-	0
85	0	0	0	-	0	-	0
86	0	0	0	-	0	-	0
87	0	0	0	-	0	-	0
88	0	0	0	0	0	0	0
89	0	-	-	-	-	-	-
90	0	-	-	-	-	-	-
91	0	-	-	-	-	-	-
92	0	-	-	-	-	-	-
93	0	-	-	-	-	-	-
94	0	-	-	-	-	-	-
95	0	-	-	-	-	-	-
96	0	-	-	-	-	-	-
97	0	-	-	-	-	-	-
98	0	-	-	-	-	-	-
99	0	-	-	-	-	-	-
100	0	-	-	-	-	-	-
<b>Totals</b>					\$ 207,804,293	\$ -	\$ 207,804,293

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.



The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan.

## SECTION I

---

### MICHIGAN PUBLIC ACT 202



## State Reporting Assumptions as of June 30, 2019

The Protecting Local Government Retirement and Benefits Act, Public Act 202 of 2017, was put into law effective December 20, 2017. One outcome of the law is the requirement for the local unit of government to provide select reporting disclosures to the State. Sec. 5(1) of the Act provides the State treasurer with the authority to annually establish uniform actuarial assumptions for purposes of developing the requisite disclosures. Below you will find information which may be used to assist the local unit of government with required reporting.

Uniform Assumptions, as applicable to the measurement and the required disclosures under uniform assumptions are denoted below. Additional discussion of the PA 202 and uniform assumptions may be found on the State website in the uniform assumption memo dated September 25, 2018.

Uniform Assumption	PA 202	Valuation Assumption Used	Uniform Assumption Used
Investment Rate of Return	Maximum of 7.00%	7.25%	<b>7.00%</b>
Salary Increase	Minimum of 3.50% or based on experience study within last 5 years	3.5% + Merit and longevity (based on experience study issued December 7, 2015)	<b>3.5% + Merit and longevity</b>
Mortality	Version of RP-2014 or based on experience study within last 5 years	A version of RP-2014 (based on experience study issued December 7, 2015)	<b>A version of RP-2014</b>
Amortization of the Unfunded Accrued Actuarial Liability:			
Period	Maximum Period of 20 Years	21 years	<b>20 years</b>
Method	Closed Plans: Level Dollar Open Plans: Level Percent of Payroll of Level Dollar	Level Dollar	<b>Level Dollar</b>
Type	Closed	Closed	<b>Closed</b>

## State Reporting as of June 30, 2019

The following information has been prepared to provide some of the information necessary to complete the pension reporting requirements for the State of Michigan's Local Government Retirement System Annual Report (Form No. 5572). Additional resources are available on the State website.

Line	Descriptive Information	
<b>3</b>	<b>Financial Information<sup>1</sup></b>	
4	Enter retirement pension system's assets (system fiduciary net position ending)	178,815,918
5	Enter retirement pension system's liabilities (total pension liability ending)	196,640,547
6	Funded ratio	Auto <sup>6</sup>
7	Actuarially Determined Contribution (ADC) <sup>7</sup>	3,140,490
8	Governmental Fund Revenues	TBD <sup>5</sup>
9	All systems combined ADC/Governmental fund revenues	Auto <sup>6</sup>
<b>10</b>	<b>Membership<sup>2</sup></b>	
11	Indicate number of active members	148
12	Indicate number of inactive members	63
13	Indicate number of retirees and beneficiaries	402
<b>14</b>	<b>Investment Performance</b>	
15	Enter actual rate of return - prior 1-year period	TBD <sup>5</sup>
16	Enter actual rate of return - prior 5-year period	TBD <sup>5</sup>
17	Enter actual rate of return - prior 10-year period	TBD <sup>5</sup>
<b>18</b>	<b>Actuarial Assumptions<sup>2</sup></b>	
19	Actuarial assumed rate of investment return <sup>3</sup>	7.25%
20	Amortization method utilized for funding the system's unfunded actuarial accrued liability, if any	Level Dollar
21	Amortization period utilized for funding the system's unfunded actuarial accrued liability, if any	21
22	Is each division within the system closed to new employees?	Yes
<b>23</b>	<b>Uniform Assumptions<sup>4</sup></b>	
24	Enter retirement pension system's actuarial value of assets using uniform assumptions <sup>7</sup>	172,348,161
25	Enter retirement pension system's actuarial accrued liabilities using uniform assumptions <sup>7</sup>	197,461,814
26	Funded ratio using uniform assumptions	Auto <sup>6</sup>
27	Actuarially Determined Contribution (ADC) using uniform assumptions <sup>8</sup>	3,825,194
28	All systems combined ADC/Governmental fund revenues	Auto <sup>6</sup>
<b>29</b>	<b>Pension Trigger Summary</b>	
30	Does this system trigger "underfunded status" as defined by PA 202 of 2017?	Auto <sup>6</sup>

<sup>1.</sup> Information on lines 4 and 5 can be found on page 14 in this GASB 67/68 valuation report.

<sup>2.</sup> Information on lines 11-13 and lines 19-22 can be found in the Annual Actuarial valuation report for the System dated December 7, 2018.

<sup>3.</sup> Net of administrative and investment expenses.

<sup>4.</sup> Information on lines 24-28 is based on assumption listed on the prior page.

<sup>5.</sup> To be supplied by the City of Wyoming.

<sup>6.</sup> Automatically calculated by State of Michigan Form 5572.

<sup>7.</sup> As of the June 30, 2018 actuarial valuation date.

<sup>8.</sup> Calculated as of June 30, 2018 applicable for fiscal year ending June 30, 2020.

## SECTION J

---

### GLOSSARY OF TERMS

# Glossary of Terms

<b><i>Actuarial Accrued Liability (AAL)</i></b>	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
<b><i>Actuarial Assumptions</i></b>	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
<b><i>Accrued Service</i></b>	Service credited under the system which was rendered before the date of the actuarial valuation.
<b><i>Actuarial Equivalent</i></b>	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
<b><i>Actuarial Cost Method</i></b>	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The Actuarial Cost Method may also be referred to as the actuarial funding method.
<b><i>Actuarial Gain (Loss)</i></b>	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
<b><i>Actuarial Present Value (APV)</i></b>	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
<b><i>Actuarial Valuation</i></b>	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions.
<b><i>Actuarial Valuation Date</i></b>	The date as of which an actuarial valuation is performed.
<b><i>Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)</i></b>	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

# Glossary of Terms

<b><i>Amortization Payment</i></b>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<b><i>Amortization Method</i></b>	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
<b><i>Cost-of-Living Adjustments</i></b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<b><i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i></b>	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
<b><i>Covered-Employee Payroll</i></b>	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
<b><i>Deferred Retirement Option Program (DROP)</i></b>	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.
<b><i>Deferred Inflows and Outflows</i></b>	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
<b><i>Discount Rate</i></b>	<p>For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:</p> <ol style="list-style-type: none"><li>1. The benefit payments to be made while the pension plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and</li><li>2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.</li></ol>

# Glossary of Terms

***Entry Age Actuarial Cost Method (EAN)***

The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the Actuarial Accrued Liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

***GASB***

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

***Fiduciary Net Position***

The fiduciary net position is the value of the assets of the trust.

***Long-Term Expected Rate of Return***

The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

***Money-Weighted Rate of Return***

The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

***Multiple-Employer Defined Benefit Pension Plan***

A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

***Municipal Bond Rate***

The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.

***Net Pension Liability (NPL)***

The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.

***Non-Employer Contribution Entities***

Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.

***Normal Cost***

The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

## Glossary of Terms

<b><i>Other Postemployment Benefits (OPEB)</i></b>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
<b><i>Real Rate of Return</i></b>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<b><i>Service Cost</i></b>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b><i>Total Pension Expense</i></b>	<p>The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:</p> <ol style="list-style-type: none"><li>1. Service Cost</li><li>2. Interest on the Total Pension Liability</li><li>3. Current-Period Benefit Changes</li><li>4. Employee Contributions (made negative for addition here)</li><li>5. Projected Earnings on Plan Investments (made negative for addition here)</li><li>6. Pension Plan Administrative Expense</li><li>7. Other Changes in Plan Fiduciary Net Position</li><li>8. Recognition of Outflow (Inflow) of Resources due to Liabilities</li><li>9. Recognition of Outflow (Inflow) of Resources due to Assets</li></ol>
<b><i>Total Pension Liability (TPL)</i></b>	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
<b><i>Unfunded Actuarial Accrued Liability (UAAL)</i></b>	The UAAL is the difference between actuarial accrued liability and valuation assets.
<b><i>Valuation Assets</i></b>	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 67, the valuation asset is equal to the market value of assets.



August 30, 2019

Ms. Rosa R. Ooms  
Finance Director  
City of Wyoming  
1155 28th Street, S. W., City Hall  
Wyoming, Michigan 49509

Dear Rosa:

Please find enclosed nine copies of the GASB Statement Nos. 67 and 68 Plan Reporting and Accounting Schedules report of the City of Wyoming Employees Retirement System.

We will be happy to meet with the Board to discuss the results of this report.

Sincerely,

A handwritten signature in black ink that reads "James D. Anderson".

James D. Anderson, FSA, EA, FCA, MAAA

JDA:sc  
Enclosures

cc: Rehmann Robson  
Attn: Peter Woldman (+1 report copy)